

## Claims

1. Method for allocating radio communication resources (R1, R2) in  
an at least partially self-organizing radio communication system  
5 comprising a plurality of user stations (MT1, MT2, MT3, MT4, MT5,  
MT6, MT7, MT8, MT9, MT10, MT11, MT12),  
whereby the radio communication system comprises at least one  
central entity (AP/CC; AP/CC 1, AP/CC 2) for organizing the  
allocation of radio communication resources (R1, R2),  
10 characterized in that  
resources (R1, R2) for a direct communication (DiL phase) between  
at least two user stations (MT1, MT2, MT3, MT4, MT5, MT6, MT7,  
MT8, MT9, MT10, MT11, MT12) in each case are allocated on a  
multiple basis at least partially by at least one central entity  
15 (AP/CC; AP/CC 1, AP/CC 2).
2. Method according to Claim 1,  
characterized in that  
the at least one central entity (AP/CC; AP/CC 1, AP/CC 2)  
20 allocates the resources (R1, R2) on a multiple basis in the  
situation when the direct communication between the at least two  
user stations (MT1, MT2, MT3, MT4, MT5, MT6, MT7, MT8, MT9, MT10,  
MT11, MT12) communicating with one another in each case while  
using the same resources (R1, R2) meets certain quality  
25 requirements.
3. Method according to Claim 1 or 2,  
characterized in that  
at least two first user stations (MT1, MT2) communicating with  
30 one another while using the same resources (R1) and at least two  
second user stations (MT4, MT5) communicating with one another  
while using the same resources are in each case situated in  
different areas (B1, B2) of the radio communication system,  
between which essentially no interference exists during the  
35 communication while using the resources (R1).
4. Method according to one of Claims 1 to 3,  
characterized in that

user stations (MT1, MT2, MT3, MT4, MT5, MT6, MT8, MT9, MT10, MT11, MT12) at least partially report accessible user stations (MT1, MT2, MT3, MT4, MT5, MT6, MT7, MT9, MT10, MT11, MT12) to the at least one central entity (AP/CC; AP/CC 1, AP/CC 2) for a direct radio communication.

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5. Method for allocating radio communication resources (R1, R2) in a cellular radio communication system having a plurality of user stations (MT1, MT2, MT3, MT4, MT5, MT6, MT7, MT8, MT9, MT10, MT11, MT12), whereby the radio communication system comprises at least one central entity (AP/CC; AP/CC 1, AP/CC 2) for organizing the allocation of radio communication resources (R1, R2), in particular according to one of Claims 1 to 4, characterized in that user stations (MT1, MT2, MT3, MT4, MT5, MT6, MT8, MT9, MT10, MT11, MT12) at least partially report accessible user stations (MT1, MT2, MT3, MT4, MT5, MT6, MT7, MT8, MT9, MT10, MT11, MT12) to the at least one central entity (AP/CC; AP/CC 1, AP/CC 2) for a direct radio communication.

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6. Radio communication system having a plurality of user stations (MT1, MT2, MT3, MT4, MT5, MT6, MT7, MT8, MT9, MT10, MT11, MT12), which comprises at least one central entity (AP/CC; AP/CC 1, AP/CC 2) for organizing the allocation of radio communication resources (R1, R2), characterized in that means are provided whereby resources (R1, R2) are allocated on a multiple basis at least partially by the at least one central entity (AP/CC; AP/CC 1, AP/CC 2) for a direct communication (DiL phase) between at least two user stations (MT1, MT2, MT3, MT4, MT5, MT6, MT7, MT8, MT9, MT10, MT11, MT12) in each case.

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7. Radio communication system according to Claim 6, characterized in that the at least one central entity (AP/CC; AP/CC 1, AP/CC 2) is equipped with means for receiving reports such that user stations (MT1, MT2, MT3, MT4, MT5, MT6, MT7, MT8, MT9, MT10, MT11, MT12)

can at least partially report accessible user stations (MT1, MT2, MT3, MT4, MT5, MT6, MT7, MT8, MT9, MT10, MT11, MT12) to the at least one central entity (AP/CC; AP/CC 1, AP/CC 2) for a direct radio communication.

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8. Radio communication system according to Claim 6 or 7, characterized in that the radio communication system at least partially exhibits a cellular structure (ZG).

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